

A Stocking Strategy for Success: Increasing River Walleye Populations

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Statewide angler surveys have shown that interior rivers and streams are the most utilized fishery in Iowa, mainly due to their abundance and accessibility. These surveys also show that the walleye is one of the most sought after gamefish species. A recently completed investigation of walleye stocking strategies has improved Iowa's river walleye stocking program, and greatly enhanced walleye populations in many interior rivers. The program has benefited many anglers and has helped to satisfy the demand for a very popular gamefish.

Starting in 1951, Iowa fisheries biologists attempted to supplement poor natural reproduction of walleyes in interior rivers with fry stockings. Due to very limited success of these stockings, research was initiated in the mid-1980's to develop a better strategy for increasing river walleye populations. In the first phase of the study, fry stockings were compared with stockings of 2-inch walleye fingerlings. Unlike the fry, which had very limited survival, the fingerlings made an immediate contribution and significantly increased adult walleye populations. By the early 1990's, walleye fingerling stockings had established excellent walleye populations in many of Iowa's interior rivers.

Our research in the 1990's focused on fine-tuning the walleye-stocking program and assessing its benefits to Iowa anglers. As a result of the documented success of the program, fingerlings are now being stocked in more rivers across Iowa. Since hatchery production of walleye fingerlings is limited, we needed to determine how many fingerlings should be stocked in each river, and which genetic strain of walleyes made the greatest contribution to river walleye populations. Research on the Wapsipinicon River showed that stocking 425 fingerlings per mile made a consistently higher contribution to the river's walleye population than lower stocking rates. In comparisons of river and lake strain walleye stockings we saw consistently better survival of river strain fingerlings. The study also found that environmental conditions should be considered when planning fingerling stockings. For example, stocking during periods of high discharges should be avoided, since high summer discharges resulted in low survival of stocked fingerlings. Also, by stocking at locations upstream of reaches targeted for enhanced walleye populations, managers can take advantage of the tendency of walleyes to move downstream from initial stocking sites.

This new and improved walleye-stocking program has been extremely popular among river anglers and has resulted in a five-fold increase in angler use and number of anglers targeting walleye. The program has also been popular among fisheries managers and study findings have proven beneficial in their efforts to improve walleye fishing in 18 Iowa rivers.